

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Stockton Branch

Waterbody Segment at a Glance:

County: Cedar
Nearby Cities: Stockton
Length of impairment: 1.7 miles
Pollutant: Volatile Suspended Solids (VSS)
Source: Stockton Wastewater Treatment Plant

Propose to change the pollutant from NFR to VSS and the length of impairment from 2.0 to 1.7 miles on the 2002 303(d) list



TMDL Priority Ranking: Low

Description of the Problem

Beneficial uses of Stockton Branch

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life and Human Health associated with Fish Consumption

Use that is impaired

- Protection of Warm Water Aquatic Life

Standards that apply

- Standards for Volatile Suspended Solids may be found in the general criteria section of the WQS, 10 CSR 20-7.031(3)(A) and (C) where it states:
 - Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
 - Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.

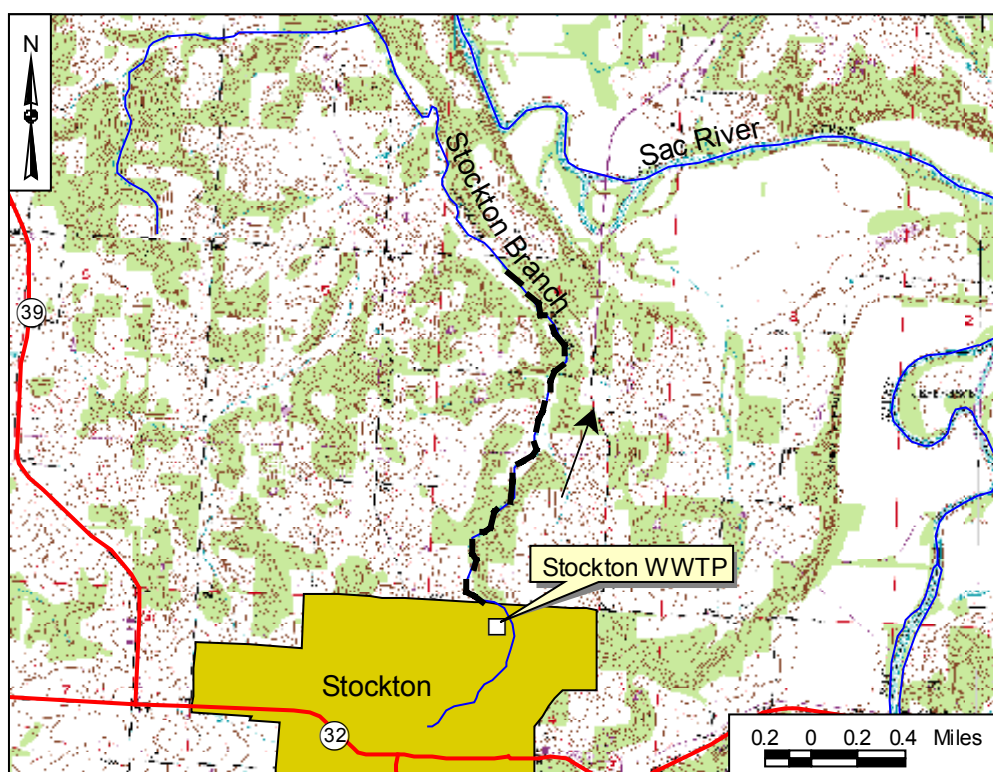
Any waterbody that was listed for Non-Filterable Residue (NFR) in 1998 is now being listed as Volatile Suspended Solids (VSS). The listing gives a clearer picture of the specific sources contributing to the impairment. VSS are organic solids coming from wastewater treatment plants.

Stockton Branch shows excessive suspended algae, excessive deposition of solids and reduced diversity of aquatic invertebrates (like crayfish and water insects) downstream from the Stockton wastewater treatment plant (WWTP). VSS refer to particles that are suspended in water, like algae,

or those that settle out, like sewage sludge. Suspended algae are a problem besides being unsightly and smelly. They block sunlight in the stream and reduce dissolved oxygen in the water. Many aquatic organisms require high levels of oxygen to survive. In addition, VSS can settle onto the streambed where they smother natural substrates (stream bottom), aquatic invertebrate animals (like crayfish and water insects) and fish eggs.

Like all wastewater discharges in Missouri, the Stockton WWTP has to meet the requirements of a discharge permit issued by Missouri Department of Natural Resources. The city has embarked on a wastewater treatment improvement program. The most recent assessment of the receiving stream, Stockton Branch, showed improved water quality conditions. The department will conduct additional monitoring of Stockton Branch after all wastewater treatment improvements have been completed.

Stockton Branch in Cedar County, Missouri



--- Impaired Segment → Direction of Flow

For more information call or write:

Missouri Department of Natural Resources

Water Pollution Control Program

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